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EXAMINER

KRASNIC, BERNARD

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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/699,011

Applicant(s)

HOLLAND, WILLIAM D.

Examiner

Bernard Krasnic

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 13-23 and 27-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 13-23 and 27-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The amendment filed 7/12/2007 have been entered and made of record.

2. The Applicant has newly added claims 31-38.

3. In response to the amendments filed on 7/12/2007:

The "Objections to the title" have been entered and therefore the Examiner withdraws the objections to the title.

The "Objections to the abstract" have been entered, but the Applicant has not amended a few of the addressed abstract objections and therefore the Examiner has once again addressed these issues.

The "Objections to the claims" have been entered and therefore the Examiner withdraws the objections to the claims.

The "Claim rejections under 35 U.S.C. 101" have been entered, but the Applicant has not amended a few of the addressed 35 U.S.C. 101 issues and therefore the Examiner has once again addressed these issues.

4. Applicant's arguments filed 7/12/2007 have been fully considered but they are not persuasive.

The Applicant alleges, "Referring to independent claim 1 ..." in pages 11-12, "In particular, at col. 4, lines 52+ of Ishigami ..." in page 12, and "Applicants respectfully

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submit that positively recited limitations ..." in page 12, and states respectively that Ishigami does not disclose nor suggest the positively recited limitation of accessing image data corresponding to a hard image to be formed and modifying the image data using correction data in claim 1. The Examiner disagrees because Ishigami teaches all the limitations of claim 1 as recited. Ishigami teaches in order to form a color image / hard image on a sheet medium, an image signal [image data of the hard image] is accessed or provided and the laser light source using this image signal information scans light in a scanning direction [basically raster scanning] to form a latent image according to the image signal, then uniform velocity correction data is then accessed to modify and correct distortion of the latent image [latent image is basically the electrostatic representation of the image signal where the image signal is the image data representing the hard image or color image] (see Ishigami, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-65). Therefore Ishigami does clearly disclose the broad interpretation of the claim limitations accessing image data / image signal corresponding to a hard image / color image to be formed / form and modifying / correcting distortion the image data / latent image [the latent image is just the electrostatic representation of the image data] using correction data / uniform velocity or magnification correction data as recited in claim 1. Therefore, claim 1 and the claims which depend from claim 1 are not in condition for allowance.

The Applicant alleges, "For example, claim 2 now recites ..." in page 12, and states respectively that Ishigami fails to teach or suggest the explicitly claimed method of using correction data to modify the image data being rasterized during the rasterizing

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because the Ishigami reference failed to mention the word "raster". Firstly, the Examiner disagrees because the reference does not have to use the exact same language to teach limitations and the Ishigami reference refers to scanning in a main direction which the Examiner stated is obvious to one of ordinary skill in the art at the time the invention was made to be realized as raster scanning (see Ishigami, col. 3, lines 1-16, col. 4, lines 59-61). Secondly, Ishigami does disclose using correction data to modify the image data being rasterized during the rasterizing (see Ishigami, col. 6, lines 25-44, correction data is read during main direction scanning for the generation of image signal creation corresponding to the correction data / modification of the image data, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify during main direction scanning / raster scanning). Therefore Ishigami does disclose the broad interpretation of the claim limitations modifying / image signal creation corresponding to the correction data the image data / image signal being rasterized / main direction scanning during the rasterizing as recited in claim 1. Therefore, claim 2 is not in condition for allowance. Also, the Chase reference is not used as a secondary reference, but is used as a reference to show the motivation that such main direction scanning within a printer type environment is a typical raster scanning.

The Applicant alleges, "Referring to dependent claim 6 ..." in page 13, and states respectively that Ishigami fails to teach or suggest the explicitly claimed method of using correction data to modify the image data being rasterized during the rasterizing. The

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Examiner disagrees as discussed above [see discussion about claim 2] and therefore claim 6 is not in condition for allowance.

The Applicant alleges, "Referring to Independent claim 13 ..." in page 13, and states respectively that the Ishigami reference does not disclose circuitry configured to modify the image data according to the correction data to reduce image errors as recited in claim 13. The Examiner disagrees as discussed above [see discussion about claim 1, the relative circuitry for the method claim is found in Figure 1 of Ishigami] and therefore independent claim 13 and the claims which depend from claim 13 are not in condition for allowance.

The Applicant alleges, "For example referring to claim 15 ..." in page 14, and states respectively that Ishigami fails to teach or suggest the explicitly claimed raster image processing circuitry configured to modify the image data according to the correction data to convert the image data from an initial format to a raster format as recited in claim 15. The Examiner disagrees as discussed above [see discussion about claim 2, the relative circuitry for the method claim is found in Figure 1 of Ishigami] and therefore claim 15 is not in condition for allowance.

The Applicant alleges, "Referring to Independent claim 18 ..." in page 14, and states respectively that Ishigami fails to teach or suggest the claimed processing circuitry configured to modify the image data and the modification comprises modifying the image data to control the generation of light in a manner to reduce the presence of image errors caused by scanning errors as positively recited in claim 18. However the Examiner disagrees as discussed above [see claim 1]. Also, Ishigami does disclose the

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broad interpretation of the claim limitations processing circuitry / image clock generating unit (9) configured to modify / correct distortion the image data / image signal to control the generation of light / laser light source in a manner to reduce / correct the presence of image errors / uniform velocity or magnification correction data [correction needed due to the uniform velocity or magnification errors] caused by scanning errors / correction data in the main scanning direction [correction needed due to the uniform velocity or magnification errors introduced when scanning the main direction] (see col. 6, lines 25-44, col. 4, lines 34-65, col. 2, lines 58-67, col. 3, lines 1-16). Therefore, independent claim 18 and the claims which depend from claim 18 are not in condition for allowance.

The Applicant alleges, "Referring to claim 27 ..." in pages 14-15, and states respectively that Ishigami fails to teach or suggest the claimed accessing image data corresponding to an initial image to be hard imaged, accessing correction data corresponding to image errors introduced by an optical scanning system, and modifying the image data responsive to the correction data to improve accuracy of a latent image formed by the optical scanning system responsive to the image data and with respect to the initial image. The Examiner disagrees as discussed above [see discussions about claims 1 and 18] and therefore independent claim 27 and the claims which depend from claim 27 are not in condition for allowance.

The Applicant alleges, "Applicants hereby add new claims 31-38 ..." in page 15, and states respectively that the Applicant has added new claims 31-38. The claim rejections are discussed below.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because it uses phrases which can be implied. "According to one embodiment, a hard imaging method" in line 3 is suggested to be -- A hard imaging method --. Also, "Other embodiments are described in the detailed description section" in lines 11-12 should be deleted.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

7. Claims 27-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 27 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP

2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

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Claims 27, while defining "computer-readable media comprising programming", does not define a "computer-readable medium" using the appropriate claim language and is thus non-statutory for that reasons. A "computer-readable media comprising programming" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The limitation in claim 27 "computer-readable media comprising programming configured to cause" should be -- a computer-readable medium encoded with computer-readable instructions to cause --.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP

2106.IV.B.1(a)

Claims 28-30 are dependent upon claim 27.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 32 and 34-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

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which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. When the Applicant adds new claims, it is essential for the Applicant to point out where the support could be found. However the Applicant has not done so for the newly added claims 31-38. The Examiner while searching the Applicants specification and drawings concluded that the newly added claims 32 and 34-38 contain subject matter which was not described as to reasonably convey possession of the claimed invention [therefore when making the claim rejections below, the claims are considered as best understood by the Examiner].

Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 3-5, 7, 13, 16, 18-19, 23, 27-28, 31-33 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishigami et al (US 5,933,184, as applied in previous Office Action).

Re Claim 1: Ishigami discloses a hard imaging method / color image forming device (Fig. 1) comprising accessing image data / image signal corresponding to a hard image

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/ color image to be formed (see Fig. 1, col. 4, lines 47-65); generating light / laser light source (5) responsive to the image data / image signal (see Fig. 1, col. 4, lines 42-51, col. 2, lines 61-67); scanning / scan the light to form a latent image / latent image corresponding to the hard image / color image to be formed (see col. 4, lines 34-39, lines 42-51, col. 2, lines 61-67); accessing / optical system (3) the generated correction data / uniform velocity correction data corresponding to scanning errors / uniform velocity error of a scan lens / mirror surface intermediate a rotating reflection device / rotary polygon mirror (6) and a photoconductor / photosensitive body (4) (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66); and modifying / corrects distortion the image data / image signal using the correction data / uniform velocity correction data before the generating (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66), the modifying / correcting distortion comprising modifying to reduce / correct an introduction of image errors / uniform velocity error resulting from the scanning / scan using the scan lens / mirror surface (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66, col. 6, lines 25-44).

Re Claim 13: Ishigami discloses a hard imaging device / color image forming device (see Fig. 1) comprising processing circuitry / image clock generating unit (9) configured to access the image data / image signal corresponding to images / color image to be formed using a hard imaging device, to access correction data / uniform velocity correction data corresponding to scanning error / uniform velocity error of an optical scanning system / optical system (3) of the hard imaging device / color image forming

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device, and to modify / correct distortion the image data / image signal according to the correction data / uniform velocity correction data to reduce / correct image errors / uniform velocity errors introduced during optical scanning of the image data using the optical scanning system (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66, col. 6, lines 25-44).

Re Claim 18: Ishigami discloses a hard imaging device / color image forming device (see Fig. 1) comprising an optical scanning system / optical system (3) configured to access image data / image signal to be used to form a hard image / color image (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66), to generate light / laser light source (5) corresponding to the image data / image signal, and to direct the generated light / laser light source indicative of the image data / image signal to a photoconductor / photosensitive body (4) (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66), wherein the optical scanning system / optical system produces images upon the photoconductor / photosensitive body which differ from images of the generated light, the difference resulting from scanning errors / uniform velocity error in the optical scanning system (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66, col. 6, lines 25-44); and processing circuitry / image clock generating unit (9) configured to modify / correct distortion the image data / image signal prior to application of the image data to the optical scanning system / optical system, wherein the modification / correct distortion of the image data comprises modifying the image data to control the generation of light / laser light source within the optical scanning

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system in a manner to reduce / correct the presence of image errors / uniform velocity errors in a resultant image formed on the photoconductor / photosensitive body and caused by the scanning errors / uniform velocity error of the optical scanning system (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66, the uniform velocity correction data is used to improve the image quality, col. 3, lines 16-24, col. 6, lines 25-44).

Re Claim 27 [as best understood by the Examiner]: Ishigami discloses an article of manufacture comprising computer-readable media comprising programming configured to cause processing circuitry / image clock generating unit (9) of a hard imaging device / color image forming device to perform processing comprising accessing image data / image signal corresponding to an initial image to be hard imaged using the hard imaging device (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66, processor usable media is within the electro-photographic printer system, abstract, lines 17-21); accessing correction data / uniform velocity correction data corresponding to image errors / uniform velocity error introduced by an optical scanning system / optical system (3) of the hard imaging device / color image forming device and configured to emit light / laser light source (5) during hard imaging operations; modifying / correct distortion the image data / image signal responsive to the correction data / uniform velocity correction data to improve the accuracy / quality of a latent image formed by the optical scanning system / optical system responsive to the image data / image signal and with respect to the initial image; and outputting the modified / corrected image data

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to the optical scanning system / optical system of the hard imaging device (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66, the uniform velocity correction data is used to improve the image quality, col. 3, line 16-24, col. 6, lines 25-44).

Re Claim 3: Ishigami further discloses the scanning / scan comprises scanning / scan using an optical scanning system / optical system having the scanning errors / uniform velocity error comprising geometric distortion / distortion characterized by the optical system of the scan lens / mirror surface, and the accessing comprises accessing the correction data / uniform velocity correction data corresponding to the geometric distortion / distortion characterized by the optical system (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66).

Re Claim 4: Ishigami further discloses the accessing comprises accessing the correction data / uniform velocity correction data configured to reduce / correct the image errors / uniform velocity error resulting from the geometric distortion / distortion characterized by the optical system (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66).

Re Claim 5: Ishigami further discloses scanning / scan comprises scanning / scan to form the latent image / latent image upon the photoconductor / photosensitive body (4) (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66).

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Re Claim 7: Ishigami further discloses modifying a timing / image clock with scanning time of an outputting of the image data / image signal to a light source / laser light source configured to generate the light (col. 3, lines 1-16, col. 6, lines 25-44).

Re Claim 16: Ishigami further discloses the processing circuitry / image clock generating unit is configured to modify / correct the image data / image signal using the correction data / uniform velocity correction data (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66) corresponding to a geometric distortion / distortion characterized by the optical system of a scan lens / mirror surface of the optical scanning system of the hard imaging device (see col. 4, lines 52-67).

As to claim 19, the discussions are addressed with respect to claims 3 and 16.

Re Claim 23: Ishigami further discloses a system of the hard imaging device comprising an electrophotographic printer (see abstract, lines 17-21).

Re Claim 28: Ishigami further discloses the processing circuitry / image clock generating unit to access the correction data / uniform velocity correction data comprising correction data configured to reduce / correct the image errors / uniform velocity errors introduced by the optical scanning system / optical system (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66).

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Re Claim 31: Ishigami further discloses the modifying the image data comprises modifying / correcting content of a representation / latent of the hard image / color image (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-64, col. 6, lines 25-44).

Re Claim 32 [as best understood by the Examiner]: Ishigami further discloses wherein the accessing comprises accessing the image data comprising initial image data / image signal and the modifying / correcting provides modified image data / image signal corrected of distortion, and wherein the modified image data causes different pixels of a raster to be imaged compared with the initial image data (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-64, col. 6, lines 25-44, the modified image signal is different than the initial image signal since distortion has been corrected using uniform velocity correction data, an original is different from a modified original).

Re Claim 33: Ishigami further discloses the modifying the image data comprises modifying / correcting data a graphical object of a display list / distortion in expansion or contraction (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-64, col. 6, lines 25-44).

Re Claim 37 [as best understood by the Examiner]: The discussions are addressed with respect to claims 13 and 32 respectively.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 2, 6, 14-15, 21-22, 30, 34-36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami as applied to claims 1, 13, 18, and 27 above. The teachings of Ishigami have been discussed above.

Re Claim 2: Ishigami further discloses rasterizing the image data (see Ishigami, Fig. 11a-b, col. 3, lines 59-61, the data is scanned in a main direction which essentially is raster scanning) from an initial format to raster image data, and wherein the modifying comprises modifying the image data / image signal creation being rasterized / scanning main direction during the rasterizing (see Ishigami, Fig. 11a-b, col. 4, lines 59-61, col. 6, lines 25-44).

Although Ishigami doesn't specifically disclose rasterizing the image data, it would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that the main scan direction is essentially rasterizing (see Chase et al, US 6,611,348 B1, col. 7, lines 57-62, Chase shows that one of ordinary skill realizes that a printer includes a raster image processor to rasterize files from one data type to another when the binary pixel information will be used for manipulation or in this case correction).

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As to claim 15, the claim is the corresponding system claim to claim 2 respectively. The discussions are addressed with regard to claim 2.

As to claim 22, the discussions are addressed with respect to claim 15.

Re Claim 6: Ishigami further discloses the modifying comprises modifying using a raster image processor (see Fig. 11a-b, col. 4, lines 59-61, the data is scanned in a main direction which essentially is raster scanning, col. 6, lines 25-44).

Although Ishigami doesn't specifically disclose rasterizing the image data with a raster image processor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that the main scan direction is essentially rasterizing with a raster image processor (see Chase et al, US 6,611,348 B1, col. 7, lines 57-62, Chase shows that one of ordinary skill realizes that a printer type device includes a raster image processor to rasterize files from one data type to another when the binary pixel information will be used for manipulation or in this case correction).

As to claim 14, the claim is the corresponding system claim to claim 6 respectively. The discussions are addressed with regard to claim 6.

As to claim 21, the discussions are addressed with respect to claim 14.

As to claim 30, the discussions are addressed with respect to claim 14.

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Re Claim 34 [as best understood by the Examiner]: Ishigami further discloses after the modifying, outputting the image data to a light source / laser light source at a constant rate / uniform velocity, and wherein the light source is configured to generate the light / laser beam (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-64, col. 6, lines 25-44). Although Ishigami doesn't specifically disclose outputting to a light source at a constant rate, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such a feature because Ishigami has been correcting for uniform velocity to be able to output at this undistorted uniform velocity / constant rate.

Re Claim 35 [as best understood by the Examiner]: Although Ishigami doesn't specifically disclose the modifying provides modified image data which causes a pixel of one scan line of a raster to be imaged using a pixel of another scan line of the raster, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such a feature because pixels obviously will be the same in different scan lines for typical objects [for example, a single colored box image has the same color value pixels in different scan lines].

Re Claim 36 [as best understood by the Examiner]: Ishigami further discloses the modifying during the rasterizing / scanning main direction provides a raster to be imaged which is different than a raster provided by rasterizing of the image data without the modifying (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-64, col. 6, lines

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25-44, it is obvious that the raster of an image signal will be different after a modification during rasterization is applied to the data, an original is different from a modified original).

Re Claim 38 [as best understood by the Examiner]: Ishigami further discloses wherein the processing circuitry is configured to modify / correct the image data / image signal to provide modified image data, and wherein the modified image data is applied to the optical scanning system / optical system at a constant rate / uniform velocity (see col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 34-64, col. 6, lines 25-44). Although Ishigami doesn't specifically disclose outputting to optical scanning system at a constant rate, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such a feature because Ishigami has been correcting for uniform velocity just to be able to output at this undistorted uniform velocity / constant rate.

14. Claims 17, 20, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami as applied to claims 13, 18, and 27 above, in view of Theodoracatos ("A 3-D vision system model for automatic object surface sensing" – International Journal of Computer Vision, 1993, pages 75-99, as applied in previous Office Action). The teachings of Ishigami have been discussed above.

Re Claim 17: Ishigami further discloses the processing circuitry / image clock generating unit is configured to modify / correct the image data / image signal using the correction

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data / uniform velocity correction data (see Fig. 1, col. 2, lines 58-67, col. 3, lines 1-16, col. 4, lines 30-66) comprising an inverse representation of the geometric distortion (Ishigami only discloses a correction distortion).

However, Ishigami fails to disclose or fairly suggest the correction data comprises an inverse representation of the geometric distortion.

Theodoracatos discloses the correction data comprising an inverse representation of the geometric distortion / inverse perspective technique (see page 85, Section – 6.1 Camera Goemetric Distortion, paragraph 2, lines 5-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishigami's device using Theodoracatos's teachings by including the inverse perspective technique to the correction data in order to reduce the distortion which is produced by the nonlinear results of the lens (see Theodoracatos, page 85, Section – 6.1 Camera Goemetric Distortion, paragraph 1).

As to claim 20, the discussions are addressed with respect to claim 17.

As to claim 29, the discussions are addressed with respect to claim 17.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

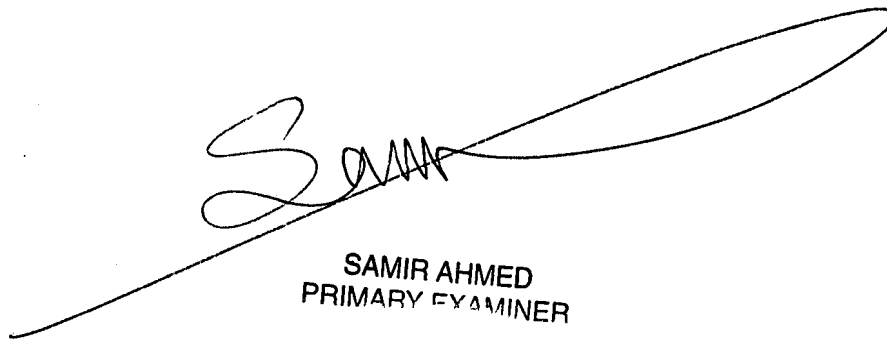
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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
September 14, 2007



SAMIR AHMED
PRIMARY EXAMINER